

Congressman Pete Sessions Presents:

Childhood Obesity:
The Problem, the Medical Issues
and the Solutions



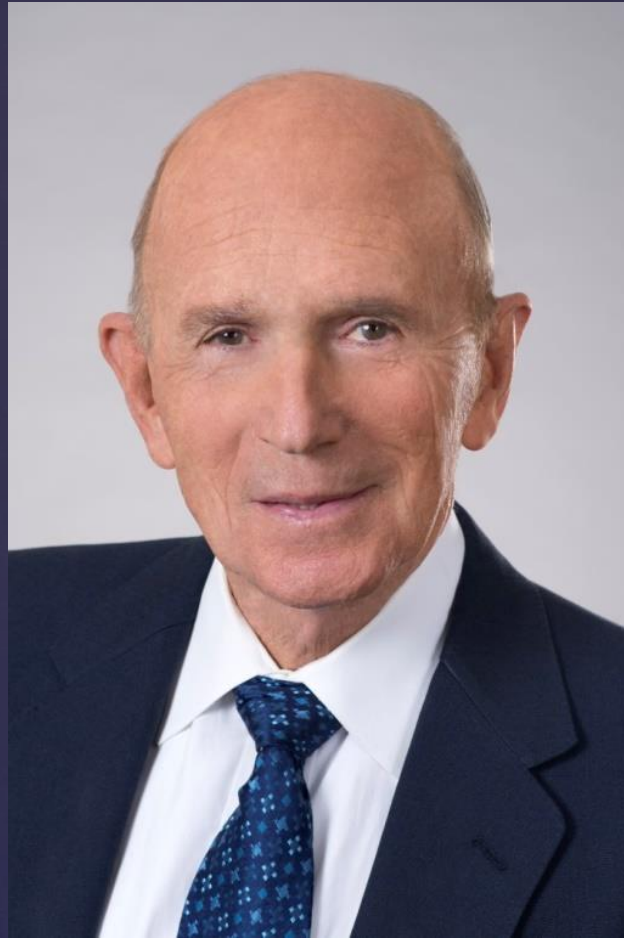
Opening Remarks by Congressman Pete Sessions



Welcome by Dr. John T. Gill, M.D.,
Dallas Sports Medicine Specialist, Orthopedics,
National Physicians Council for Healthcare Policy, Co-Chair



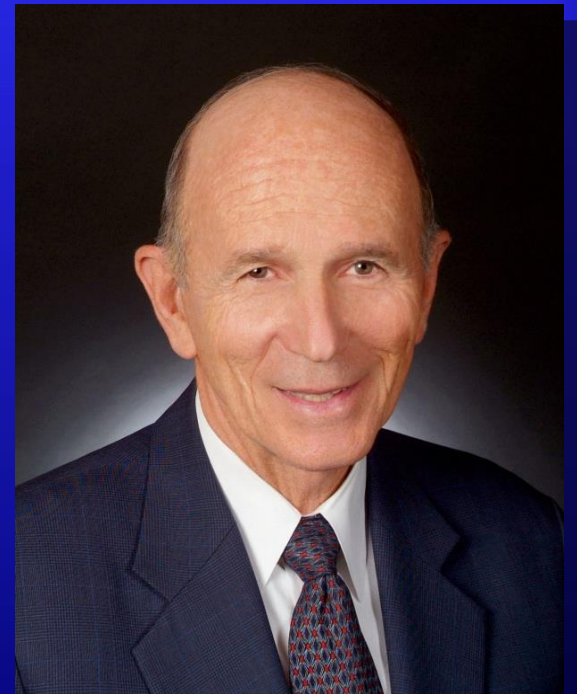
Special Guest: Herschel Walker
RB #34 Dallas Cowboys
Two time Heisman Award Winner



Special Guest: Dr. Kenneth Cooper,
M.D., M.P.H., Cooper Clinic

Childhood Obesity, the Most Fearful Enemy to Their Health

*Kenneth H. Cooper, M.D., M.P.H.
Founder & Chairman
The Cooper Aerobics Center
12200 Preston Road
Dallas, Texas*

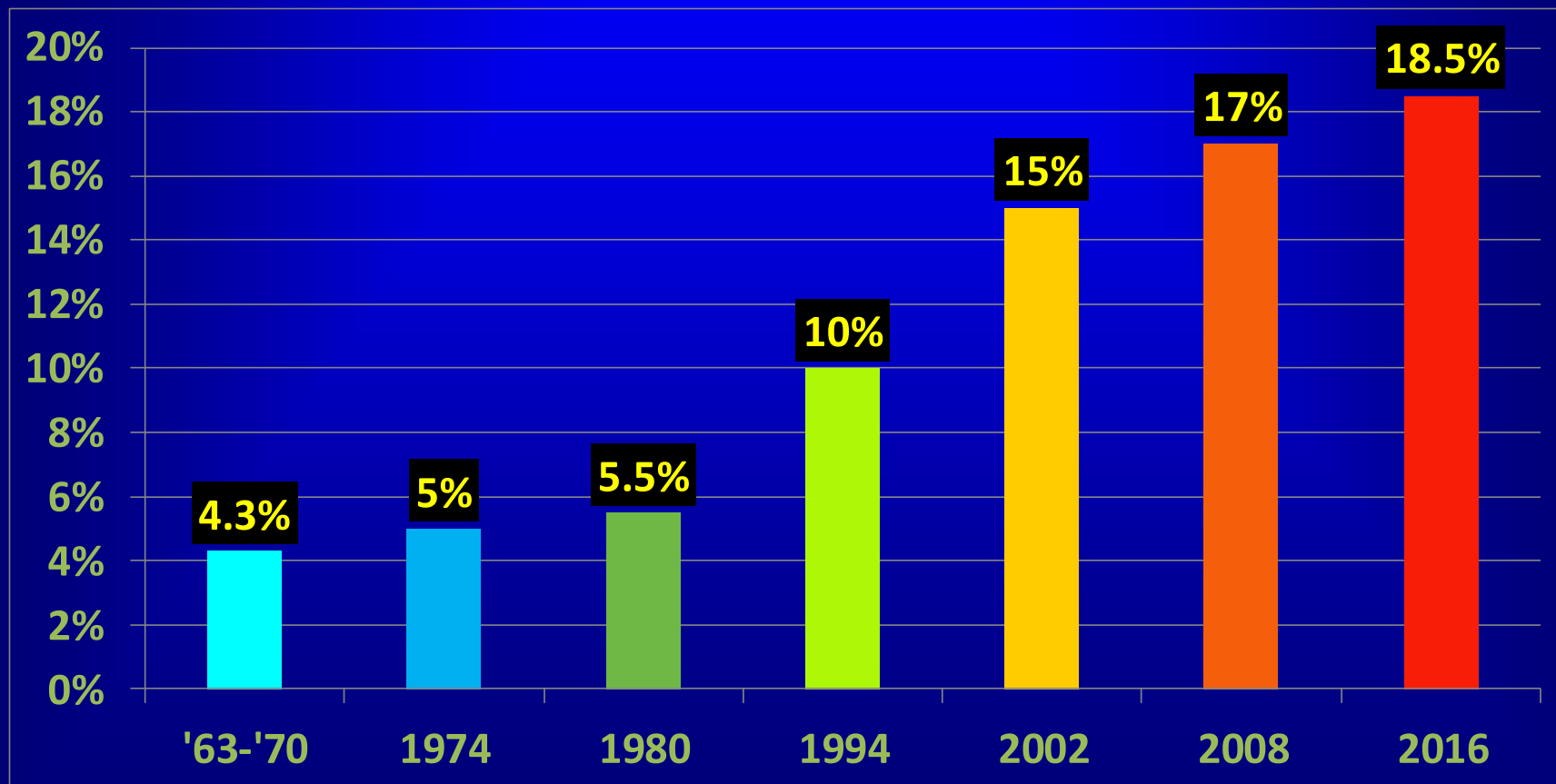




“Signs of trouble loom on the horizon, among them twin epidemics of diabetes and obesity in young people.”

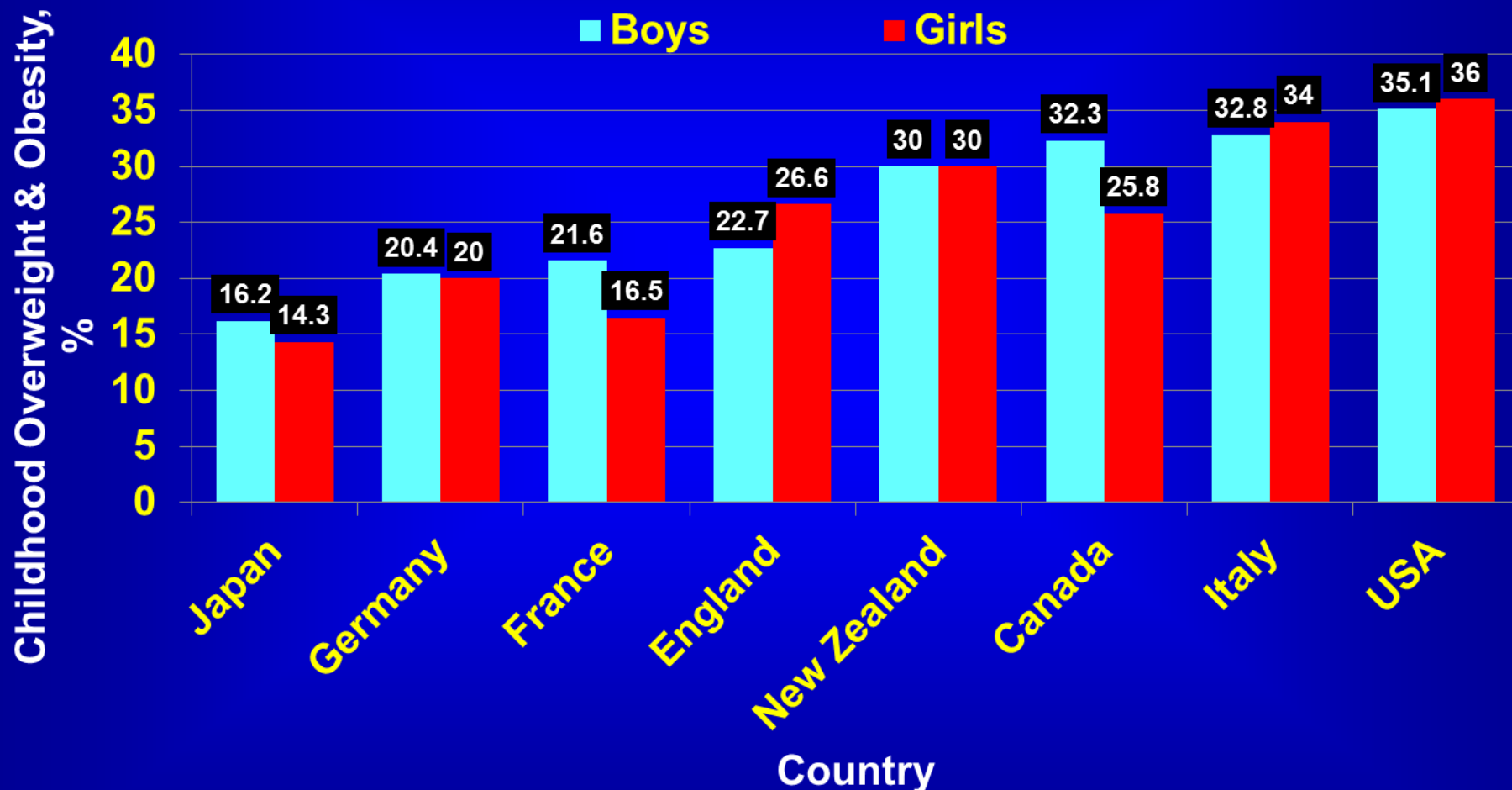
Obesity and Youth

Percentage of obese kids, ages 2-19



Source: Centers for Disease Control and Prevention

Percentages of Children Overweight & Obesity in Developed Countries



There is an epidemic of adult-onset diabetes being seen in children. It is estimated that among children born after the year 2000:

- 1 out of 3 children will develop diabetes (higher in Hispanics and African-Americans)

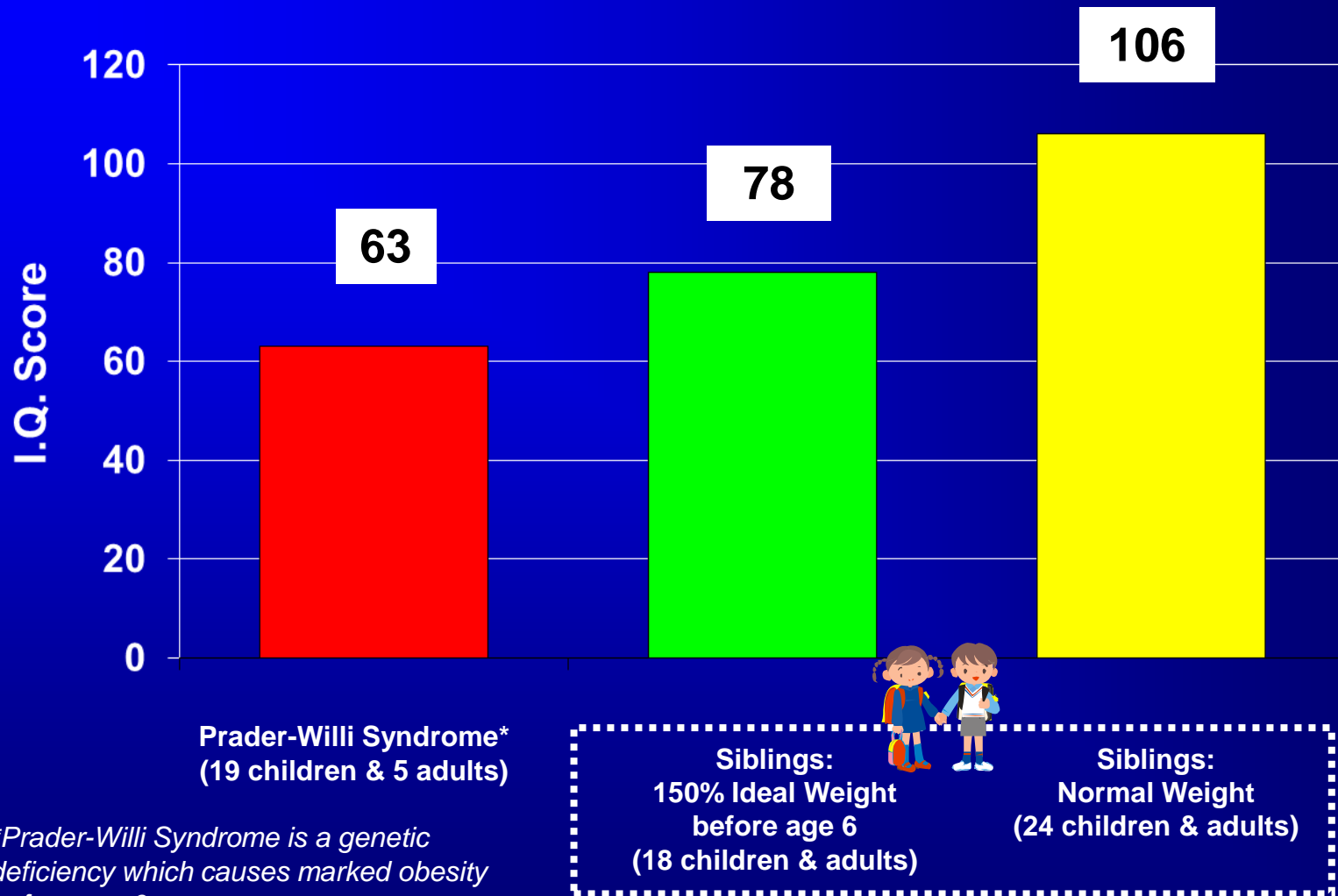
If they develop adult-onset diabetes before 14 years of age, it is estimated that that will shorten their lifespan by 17 to 27 years. As a result, this may be the first generation in which parents live longer than their children.

The food industry is pushing back against stronger public health measures aimed at combatting obesity. Also, the Trump Administration has proposed rules favored by major food companies that would limit the ability of the United States, Mexico and Canada (NAFTA) to require warning about the health risks of foods high in sugar and fat.

Source: Dallas Morning News/New York Times, Mar. 23, 2018

Obesity and Comorbid Conditions

Early-Onset Obesity and Its Effect on I.Q.



“... discovered a link between marked obesity in toddlers and lower IQ scores, cognitive delays, and brain lesions similar to those seen in Alzheimer’s disease patients.”

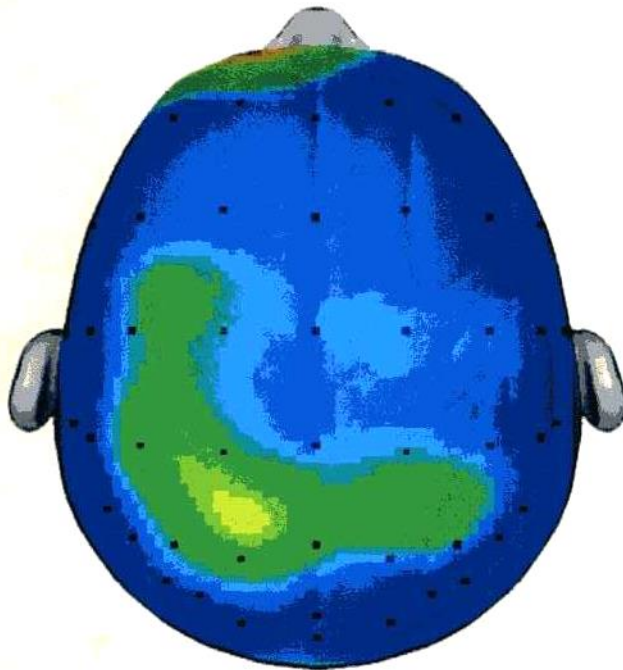
" ... emerging research showing that physical activity sparks biological changes that encourage brain cells to bind to one another. For the brain to learn, these connections must be made."

" ... exercise provides an unparalleled stimulus, creating an environment in which the brain is ready, willing, and able to learn."

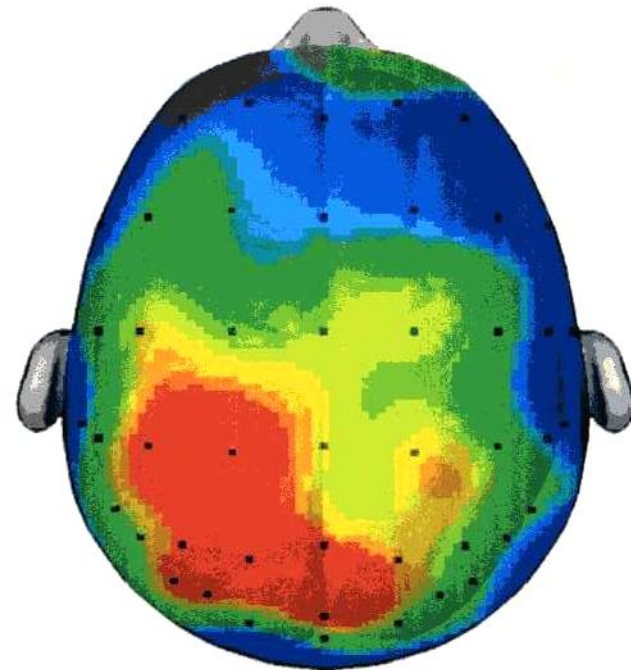
"Exercise is fertilizer for the brain."

Increasing Physical Activity

Brain after sitting quietly



Brain after 20 minute walk



81%

of U.S. teachers say
kids' behavior changes
positively after recess.



Articles: Physically Fit Students & Academics

1. Christian K. Roberts, et al, "Low Aerobic Fitness and Obesity Are Associated with Lower Standardized Test Scores in Children," *The Journal of Pediatrics* Vol. 156, Issue 5 (May 2010): 711-718.e1.
2. Lesley Cottrell, Ph.D., Assoc. Prof., Pediatrics, University of West Virginia, Morgantown, *American Heart Association's 2010 Conference on Nutrition, Physical Activity and Metabolism*, San Francisco, CA, March 2, 2010.
3. American Heart Association, "Fact Sheet: Physical Education in Public Schools," March 1, 2010.
4. Dawn Podulka Coe, et al, "Effect of Physical Education and Activity Levels on Academic Achievement in Children," *Medicine & Science in Sports & Exercise* 38(8), (December 2009/January 2010): 1515-1519.
5. Virginia R. Chomitz, Ph.D., et al, "Is there a Relationship Between Physical Fitness and Academic Achievement? Positive Results from Public School Children in the Northeastern United States," *Journal of School Health* Vol 79, No. 1 (January 2009): 30-37.
6. Darla M. Castelli, et al, "Physical Fitness and Academic Achievement in Third- and Fifth-Grade Students," *Journal of Sport & Exercise Physiology* Vol. 29, No. (2) (Apr 2007): 239-252.
7. J.B. Grissom, "Physical Fitness and Academic Achievement," *Journal of Exercise Physiologyonline* Vol. 8, No. 1 (February 2005): 11-25.

Obesity and Academic Achievements

***Stanford Achievement Test
Ninth Edition
(SAT-9)
2004***

FITNESSGRAM® Tests

AEROBIC CAPACITY

#1 PACER (Progressive Aerobic Cardiovascular Endurance Run)

Set to music, a paced, 20-meter (or 15-meter for smaller space) shuttle run increasing in intensity as time progresses.

Or:

- ***One-Mile Run***
Students run (or walk if needed) one mile as fast as they can.
- ***Walk Test***
Students walk one mile as fast as they can (for ages 13 or above since the test has only been validated for this age group).

FITNESSGRAM® Tests

BODY COMPOSITION

#2 Skin Fold Test

Measuring percent body fat by testing the triceps and calf areas.

Or:

- ***Body Mass Index (BMI)***
Calculated from height and weight



FITNESSGRAM® Tests

MUSCULAR STRENGTH AND ENDURANCE

#3 Curl-Up

Measuring abdominal strength and endurance, students lie down with knees bent and feet unanchored.

Set to a specified pace, students complete as many repetitions as possible to a maximum of 75.



FITNESSGRAM® Tests

MUSCULAR STRENGTH AND ENDURANCE

#4 Trunk Lift

Measuring trunk extensor strength, students lie face down and slowly raise their upper body long enough for the tester to measure the distance between the floor and the student's chin.



FITNESSGRAM® Tests

MUSCULAR STRENGTH AND ENDURANCE

#5 Push-Up

Measuring upper body strength and endurance, students lower body to a 90-degree elbow angle and push up. Set to a specific pace, students complete as many repetitions as possible.

Or:

- *Modified Pull-Up (proper equipment required)
With hands on a low bar, legs straight and feet touching the ground, students pull up as many repetitions as possible.*
- *Flexed Arm Hang
Students hang their chin above a bar as long as possible.*



FITNESSGRAM® Tests

FLEXIBILITY

#6 Back-Saver Sit and Reach

Testing one leg at a time, students sit with one knee bent and one leg straight against a box and reach forward.



Or:

- ***Shoulder Stretch***
With one arm over the shoulder and one arm tucked under behind the back, students try to touch their fingers and then alternate arms.



FitnessGram Student Report

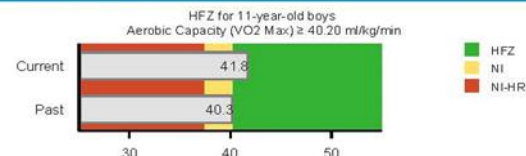
FITNESSGRAM®

Joe Smith (ID:829202044)

Grade: 5 (Age: 11)
Teacher: Jogger, Jane
School: Cooper Elementary
District: Cooper District
Report Date: 5/10/2016

	Past	Current
Test Date:	11/3/2015	5/1/2016
Height:	5' 6"	5' 6"
Weight:	125 lbs	124 lbs

Aerobic Capacity



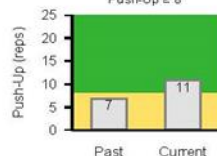
Current	20M Pacer (laps)	24
Past	20M Pacer (laps)	20

Congratulations! Your aerobic capacity is in the Healthy Fitness Zone and you are physically active most days. To maintain health and fitness, continue to participate in physical activities for at least 60 minutes each day. Keep your Body Mass Index (BMI) in the Healthy Fitness Zone.

Musculoskeletal Fitness

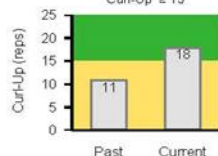
Upper Body Strength/Endurance

HFZ for 11-year-old boys
Push-Up ≥ 8



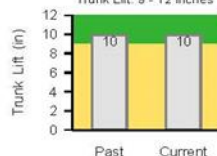
Abdominal Strength/Endurance

HFZ for 11-year-old boys
Curl-Up ≥ 15



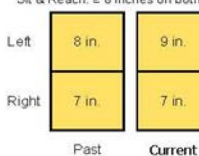
Trunk Extensor Strength

HFZ for 11-year-old boys
Trunk Lift: 9 - 12 inches



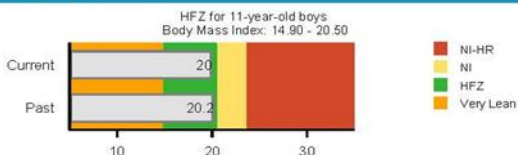
Flexibility

HFZ for 11-year-old boys
Sit & Reach: ≥ 8 inches on both left & right legs



Your abdominal, trunk, and upper-body strength are all in the Healthy Fitness Zone. To maintain your fitness, be sure that your strength-training activities include exercises for all of these areas. Strength activities should be done at least 3 days per week. In addition to aerobic and muscle-strengthening activities, it is important to perform stretching exercises to maintain or improve flexibility and some weight-bearing activity (e.g. running, hopping, jumping or dancing) to ensure good bone health at least 3 days per week.

Body Composition



Good news! Your body composition is in the Healthy Fitness Zone. To maintain this healthy level of body composition, remember to:
 -Be active for at least 60 minutes every day.
 -Limit screen time to less than 2 hours a day.
 -Make healthy food choices including fresh fruits and vegetables.
 -Limit fried foods, foods with added sugars and sugary drinks.

Physical Activity

Reported Activity/Past 7 Days	Days	Goal
Aerobic activity for a total of 60 minutes or more	7	7
Muscle strengthening activity	3	3
Bone strengthening activity	2	3

To be healthy and fit, it is important to do some physical activity for a total of 60 minutes or more daily. Aerobic exercise is good for your heart and body composition. Muscular and bone-strengthening exercises are good for your muscles and joints. Congratulations! You are doing aerobic activity most or all days and muscular-strengthening exercises. Add some bone-strengthening exercises to improve your overall fitness.

IN PARTNERSHIP WITH



THE NFL MOVEMENT FOR AN ACTIVE GENERATION

FITNESSGRAM®
The Cooper Institute®

PLAYBOOK

**BUILDING
A HEALTHIER
GENERATION**
WELL. INTO THE FUTURE.

*A guidebook for the NFL PLAY 60 FitnessGram® Project,
illustrating the strategies, approaches and plans to
effectively implement a variety of programs through
NFL PLAY 60 campaign.*



COOPERINSTITUTE.ORG/FITNESSGRAM/NFL

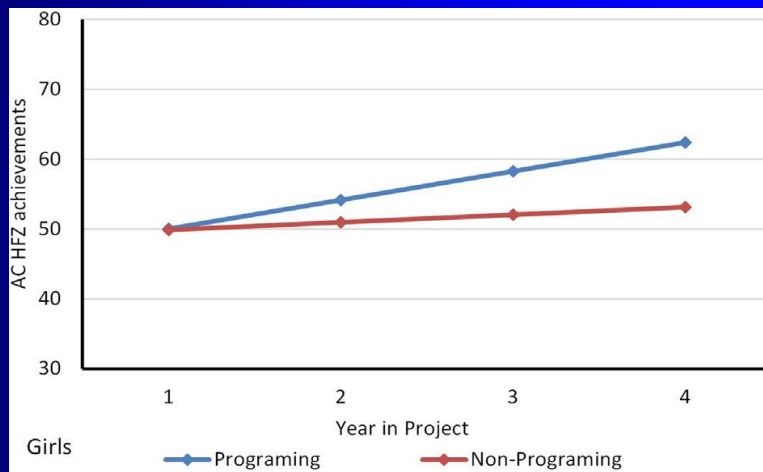
www.cooperinstitute.org/fitnessgram/NFL

NFL Play 60 FitnessGram® Project

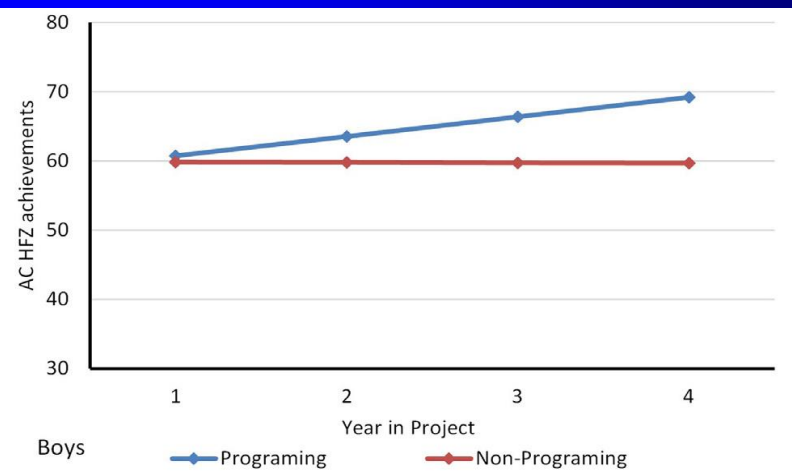
The project, which focuses on schools and programs in each of the 32 NFL markets, is the largest school-based research initiative to date with over 1,100 sites annually enrolled, reaching more than six million students.



Girls



Boys



→ Programming → Non-Programming

→ Programming → Non-Programming

Healthy NE

a program of



The Cooper Institute®



HealthyZoneSchool.org

[#HealthyZoneSchool](https://twitter.com/HealthyZoneSchool)

Presidential Youth Fitness Program



K-3 Fitness Club

Professional Development

Standards for Healthy Fitness Zone

BOYS

Aerobic Capacity				Percent Body Fat			
VO ₂ max (ml/min/kg)				NI			
PACER One Mile Run & Walk Test				NI-Health Risk			
No-Health Risk	HFZ	Very Lean	NI	NI-Health Risk	HFZ	NI	NI-Health Risk
5	Completion of test. Lap count	≤8.8	8.9-18.8	18.9	≥27.0		
6	or time standards not recommended.	≤8.4	8.5-18.8	18.9	≥27.0		
7		≤8.2	8.3-18.8	18.9	≥27.0		
8		≤8.3	8.4-18.8	18.9	≥27.0		
9		≤8.6	8.7-20.0	20.1	≥30.1		
10	≤37.3 37.4-40.1 ≥40.2	≤8.8	8.9-22.4	22.5	≥33.2		
11	≤37.3 37.4-40.1 ≥40.2	≤8.7	8.8-23.8	23.7	≥35.4		
12	≤37.6 37.7-40.2 ≥40.3	≤8.3	8.4-23.8	23.7	≥35.9		
13	≤38.6 38.7-41.0 ≥41.1	≤7.7	7.8-22.8	22.9	≥35.0		
14	≤38.6 38.7-42.4 ≥42.5	≤7.0	7.1-21.3	21.4	≥33.2		
15	≤40.0 40.7-43.5 ≥43.6	≤6.5	6.6-20.1	20.2	≥31.5		
16	≤41.0 41.1-44.0 ≥44.1	≤6.4	6.5-20.1	20.2	≥31.6		
17	≤41.2 41.3-44.1 ≥44.2	≤6.6	6.7-20.9	21.0	≥33.0		
≥17	≤41.2 41.3-44.2 ≥44.3	≤6.9	7.0-22.2	22.3	≥35.1		

Member
PRESIDENTIAL YOUTH FITNESS PROGRAM
FITNESS CLUB
You did the tests, you're in the club!

Essentials of the
**Presidential Youth
Fitness Program**
Online Course

	PACER (20m) Laps		Aerobic Capacity	
Age	Male	Female	Male	Female
10	17	17	40.2	40.2
11	20	20	40.2	40.2
12	23	23	40.3	40.1
13	29	25	41.1	39.7
14	36	27	42.5	39.4
15	42	30	43.6	39.1
16	47	32	44.1	38.9
17	50	35	44.2	38.8
18	54	38	44.3	38.6

Standards Charts

PACER Look-Up Charts

2004 CST* Scores in Math by Number of Fitness Standards

Grade 5 – 371,198 Students
Grade 7 – 366,278 Students
Grade 9 – 63,028 Students**



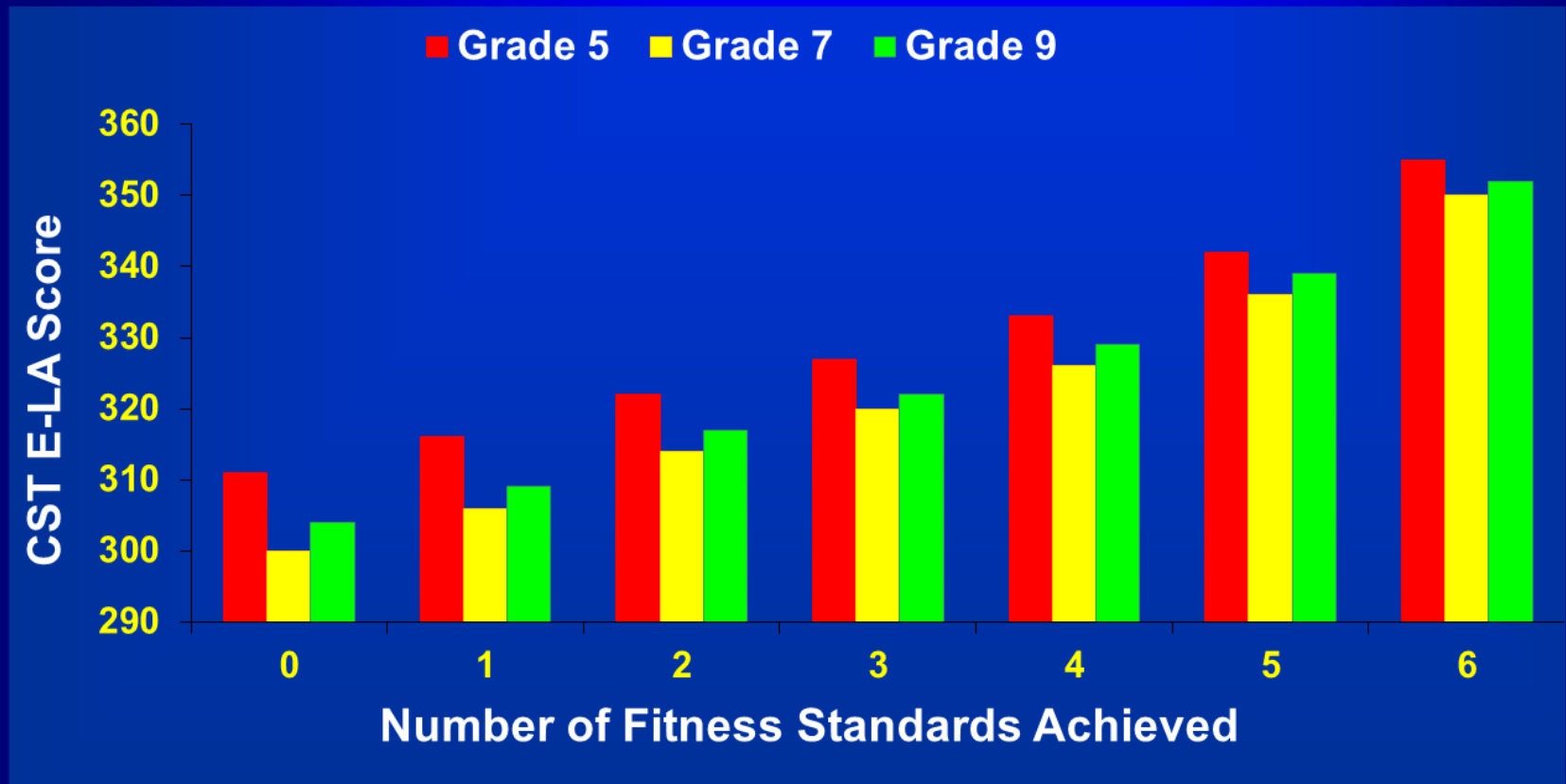
*California Standards Test

** Grade 9 Students who took CST geometry

Source: California Physical Fitness Test, 2004 Results, Calif. Dept. of Ed., April 2005

2004 CST* Scores in English-Language Arts by Number of Fitness Standards

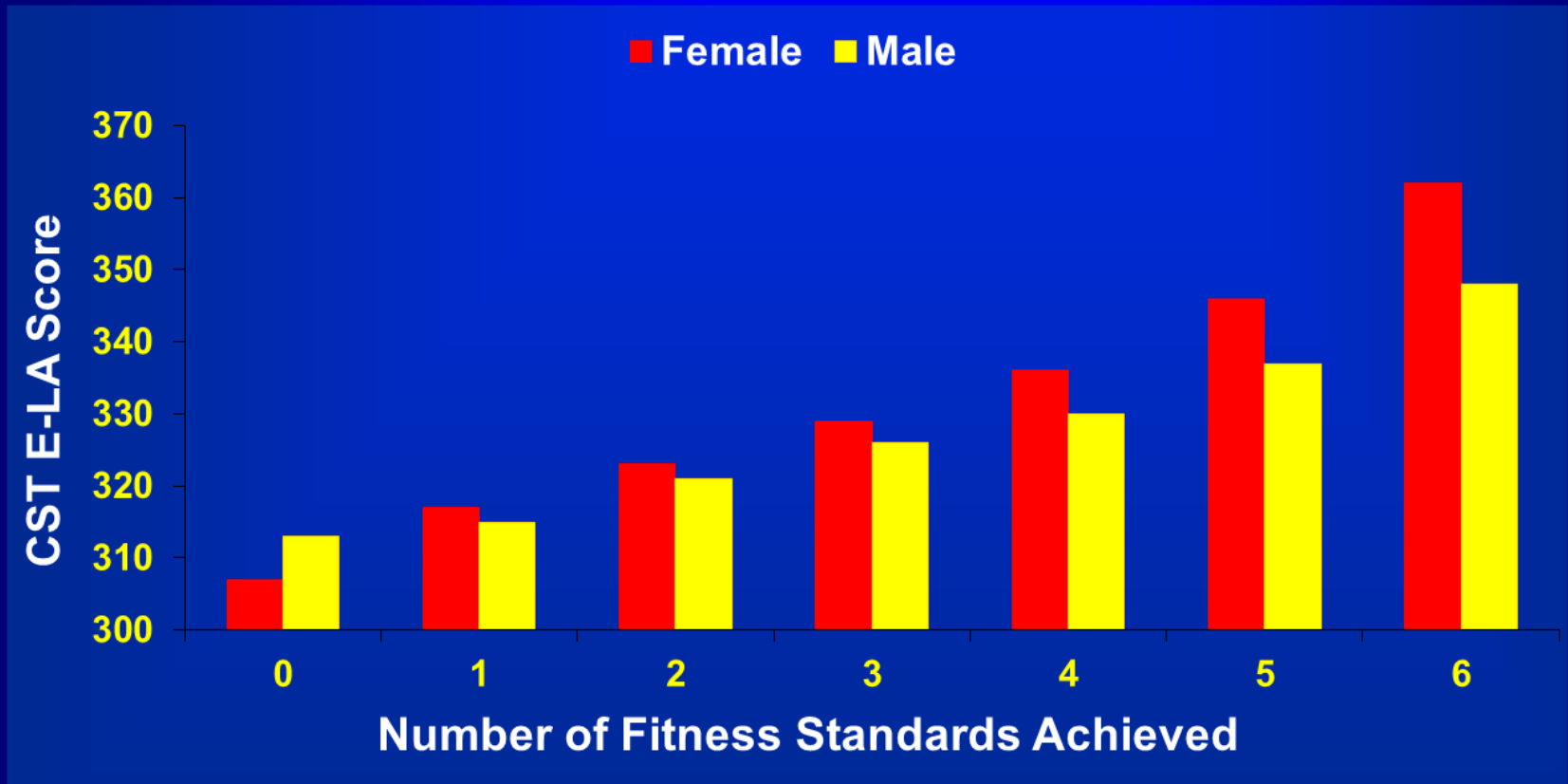
Grade 5 – 371,198 Students
Grade 7 – 366,278 Students
Grade 9 – 298,910 Students



*California Standards Test

2004 CST* Scores in English-Language Arts in Grade 5 By Gender and Number of Fitness Standards

371,198 Students
(182,287 Female and 188,921 Male)



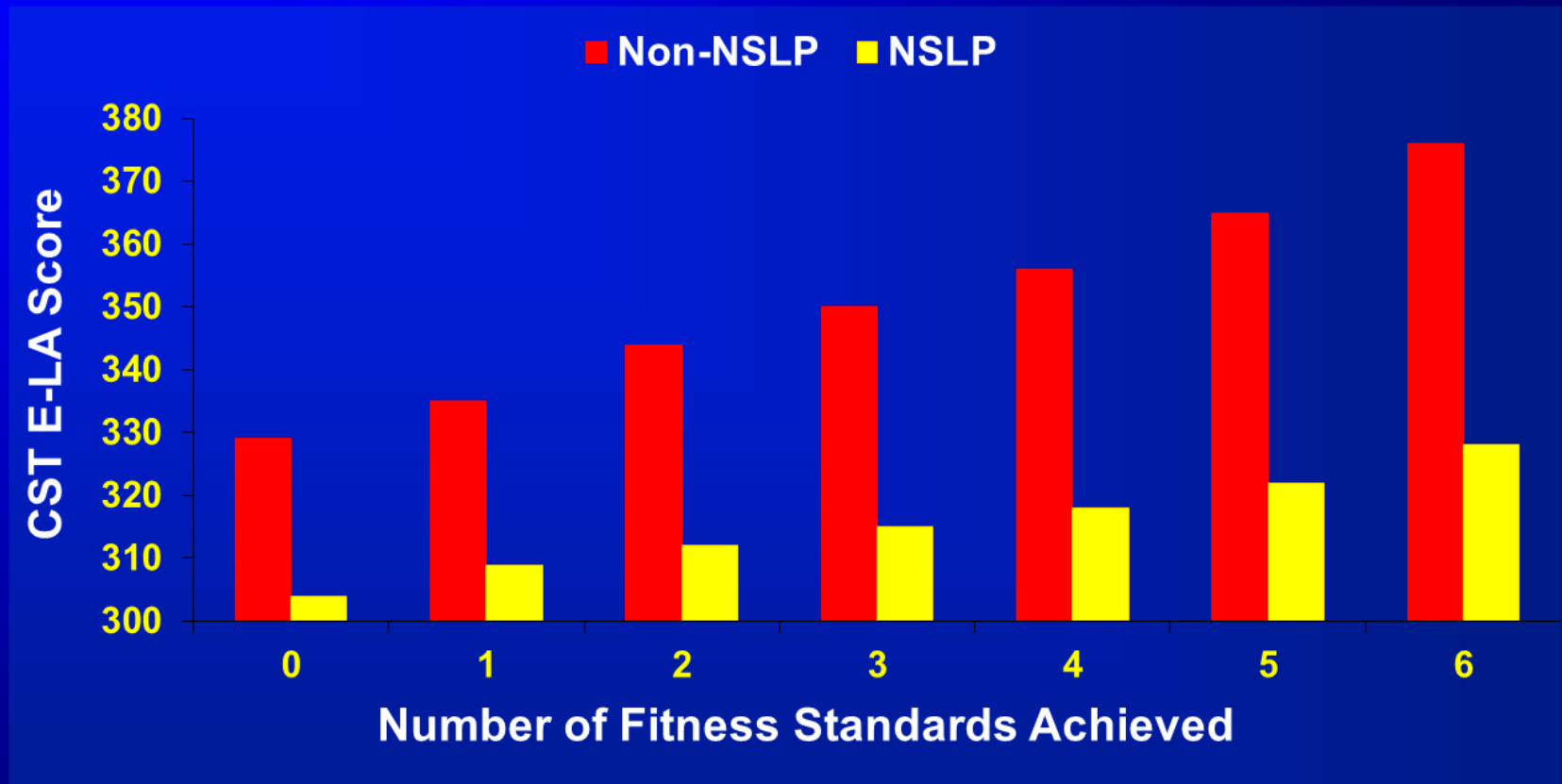
*California Standards Test

Results using math scores were consistent with those using English-Language Arts scores.
Results for seventh- and ninth-grade students were consistent with those for fifth graders.

Source: California Physical Fitness Test, 2004 Results, Calif. Dept. of Ed., April 2005

2004 CST* Scores in English-Language Arts in Grade 5 by Socioeconomic Status** and Number of Fitness Standards

371,198 Students (203,726 NSLP and 167,472 Non-NSLP)



*California Standards Test

**National School Lunch Program

Results using math scores were consistent with those using English-Language Arts scores.

Results for seventh- and ninth-grade students were consistent with those for fifth graders.

Source: California Physical Fitness Test, 2004 Results, Calif. Dept. of Ed., April 2005



Senate Bill 530

***Passed by Texas State
House of Representatives and
Senate on May 27, 2007***

***Signed into Law by
Governor Rick Perry
on June 13, 2007***

***Fitnessgram® approved as official testing
vehicle by the Texas Education Agency
on September 27, 2007***

Senate Bill 530

Exercise Requirements (Sep 2007)

Grades K – 5

- **30 minutes 5 times/week or**
- **45 minutes 3 times/week (135 minutes total)**
- **225 minutes over 2 weeks (45 minutes 3 times the first week, 45 minutes 2 times the second week)**

Grades 6 – 8

- **Same as above, but only 4 of 6 semesters are required**

Grades 9 – 12

- **No physical education requirement**

Testing Requirements (using the Fitnessgram®)

- **Beginning in the 2007-08 school year, all students grades 3 - 12 will be required to be tested annually at some time during the school year.**

The Dallas Morning News

Texas' Leading Newspaper

75 cents

Dallas, Texas, Wednesday, July 2, 2008

dallasnews.com

Sunny



WFDA
H 95
L 73

Metro, back page

METRO

Police seek link in traffic shootings

Police are investigating whether six suburban shootings that have injured three people this week are the acts of a gunman who is randomly picking his victims. 1B

BUSINESS



Starbucks to close stores, cut jobs

Starbucks announced Tuesday that it will close 600 stores and cut up to 12,000 jobs, or 7 percent of its workforce. 3D

Dallas restaurateur

FITNESS | ASSESSING TEXAS' SCHOOLCHILDREN

A backward lunge: Kids in sad shape



The Associated

Above: Kenneth Cooper of the Cooper Institute of Dallas said he hopes the results will "shock the state into reality and into action."

Texas Youth Evaluation Project 2008

Total # of Students Grades 3-12: 2,658,665

Grade	FITNESSGRAM® Test % Achieving Healthy Fitness Zone on all 6 tests		
	Total # Students	Girls	Boys
3	102,342	33.25	28.60
4	80,539	28.50	21.14
5	66,798	23.82	17.89
6	60,663	23.08	17.60
7	55,441	21.32	17.26
8	48,971	18.99	17.88
9	39,456	13.90	15.04
10	28,650	12.42	13.70
11	21,152	10.68	12.24
12	13,040	8.18	8.96

6,532 campuses out of 9,212 (70.91%)

1,074 districts out of 1,267 (84.77%)

FITNESSGRAM® Test 2008
Achieved “Healthy Fitness Zone” in all 6 Tests
Boys: 25,000±

Grade	El Paso ISD	Statewide
3	55.79	27.64
4	53.89	20.36
5	55.90	17.29
6	44.35	17.10
7	38.43	16.93
8	39.34	17.55
9	27.60	14.40
10	19.43	13.12
11	20.73	11.71
12	11.65	8.56

FITNESSGRAM® Test 2008
Achieved “Healthy Fitness Zone” in all 6 Tests
Girls: 22,000±

Grade	El Paso ISD	Statewide
3	69.47	32.09
4	68.43	27.40
5	55.76	23.03
6	56.11	22.59
7	48.59	20.93
8	41.65	18.70
9	23.11	13.40
10	29.26	11.94
11	20.10	10.25
12	10.29	7.82

El Paso Independent School District Physical Education Program Elements

Exercise Requirements

Grades K – 5

- ***45 minutes/day taught by a Certified Physical Education Teacher***
- ***Daily recess 15-20 minutes***
- ***United States Tennis Association (USTA) Partnership –
(provides skill development for students)***

Grades 6 – 7

- ***50 minutes daily or 90 minutes every other day***
- ***United States Tennis Association (USTA) Partnership***

Grade 8

- ***One semester 50 minutes daily or 90 minutes every other day***

Grades 9 – 12

- ***1-1/2 credits of physical education are required (less than 35% of the students actually take a P.E. class). Other activities allow them to waive this requirement.***

Testing Requirements (using the Fitnessgram®)

- ***All students grades 3 – 12 will be tested annually.***

Texas Education Agency Physical Fitness Assessment Initiative

10 Variables Compared with Levels of Fitness

- Attendance Rate
 - Eligible for free lunch program
 - Eligible for reduced lunch program
 - TAKS
 - Occurrence of substance abuse
 - Occurrence of violence
 - Occurrence of weapons
 - Occurrence of truancy
-
- Obesity
 - Diabetes

The Dallas Morning News

Texas' Leading Newspaper

75 cents

Dallas, Texas Tuesday, March 10, 2009

dallasnews.com

EDUCATION

Study: Fit kids do better in school

TEA cites improved testing, behavior; arts teachers fear more PE

By **TERRENCE STUTZ**
Austin Bureau
tstutz@dallasnews.com

AUSTIN — Texas students who are physically fit are more likely to do well on achievement tests and less likely to have disciplinary problems, according to a study released Monday by the Texas Education Agency.

Based on annual physical fitness assessments of more than 2.4 million students in the public schools, the study found that increased exercise enhances the ability to learn, as evidenced by the higher scores of physically fit children on the Texas Assessment of Knowledge and Skills.

Schools with a higher percentage of students in shape also benefited, according to the study, earning better performance ratings from the state. And attendance rates were higher for students who were physically fit.

Gov. Rick Perry and Sen. Nelson, R-Flower

Mound, were among those present as the study was unveiled. Nelson is sponsoring legislation this year to increase physical education requirements for Texas students in middle school.

Nelson, who wrote the 2007 measure that required annual fitness assessments, said there is more work to do to combat obesity and get children in shape, including more time in PE. A measure she has written this year would require two additional semesters in middle school, for a total of six.

"We need to move forward on this issue as if lives depend on it — because they do," she said.

But groups representing fine arts teachers are lining up against the legislation, contending it would further erode students' ability to take music and fine arts classes.

"More and more requirements have crowded out the opportunity for students and schools to fit music and fine arts into their schedules," said Robert Floyd of the Texas Coalition for Quality Arts Education.

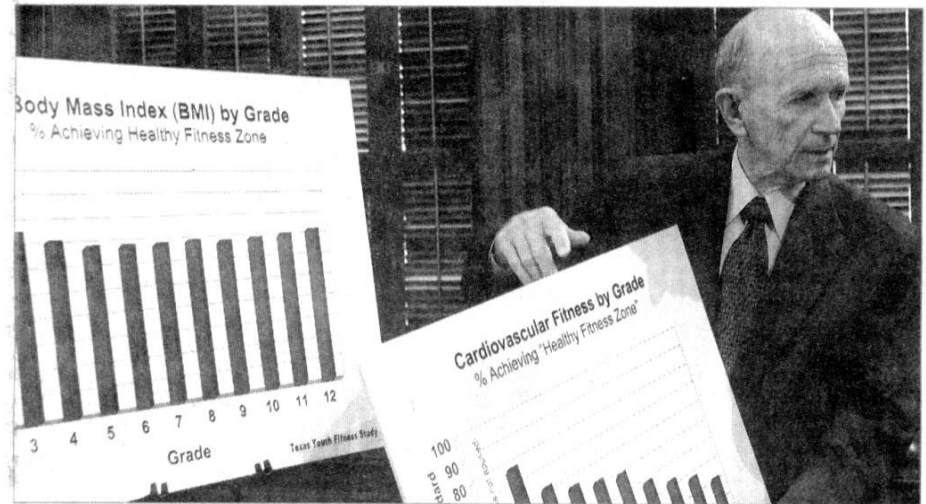
He also criticized the growing practice of pulling students

out of fine arts class to cram for the TAKS test — a practice he called "educational child abuse."

The fitness study released by the TEA was based on the Fitnessgram tests — developed by the Cooper Institute of Dallas — given to students at 6,532 Texas schools in the 2007-08 school year. The assessments measured students in grades three through 12 in five areas — body composition, aerobic capacity, muscular strength, endurance and flexibility. The results determined whether a student was in a "healthy fitness zone" for their age and gender.

The study found that fitness levels dropped with each passing grade level. Elementary-age children performed the best while high school students had the lowest percentage of students who were deemed physically fit. For example, about 78 percent of fourth-graders were in the healthy fitness zone, while only 20 percent of high school seniors were in the zone.

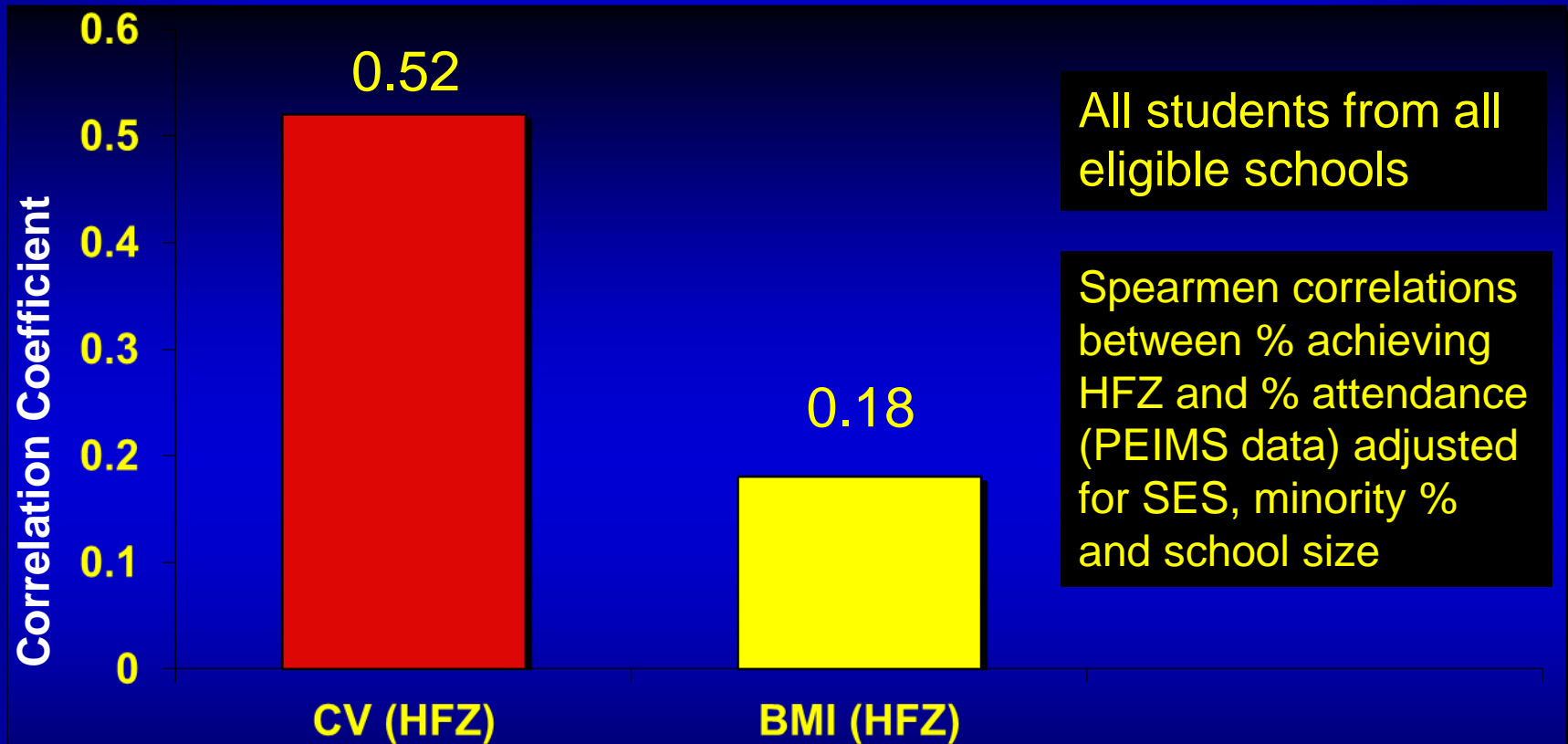
Students will undergo a second round of Fitnessgram testing this spring.



HARRY CABLUCK/The Associated Press

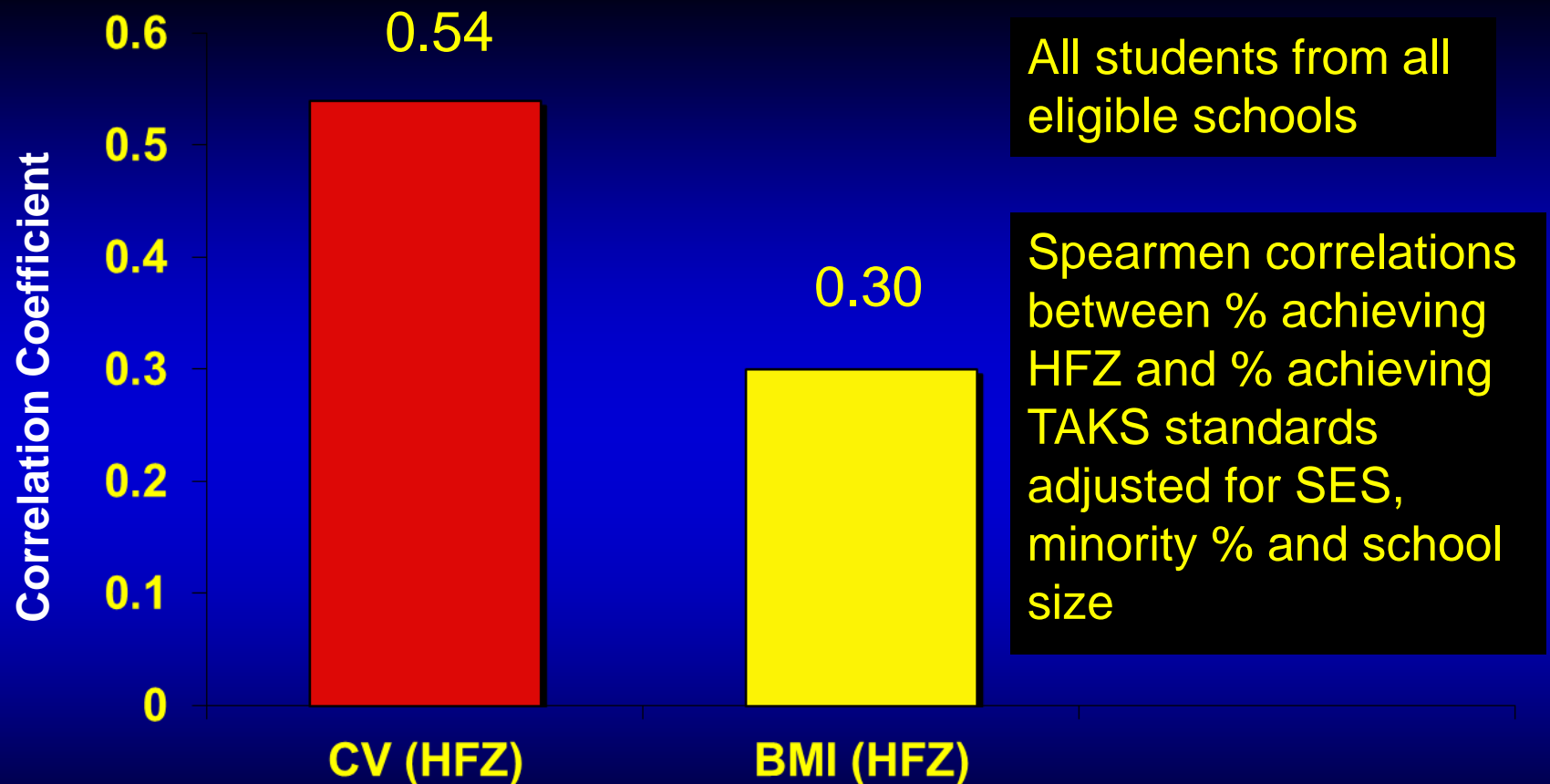
Dr. Kenneth Cooper of the Cooper Institute of Dallas released study results that showed how fitness affects academic performance, attendance and discipline in Texas schools.

Association Between Fitness and School Attendance Rates



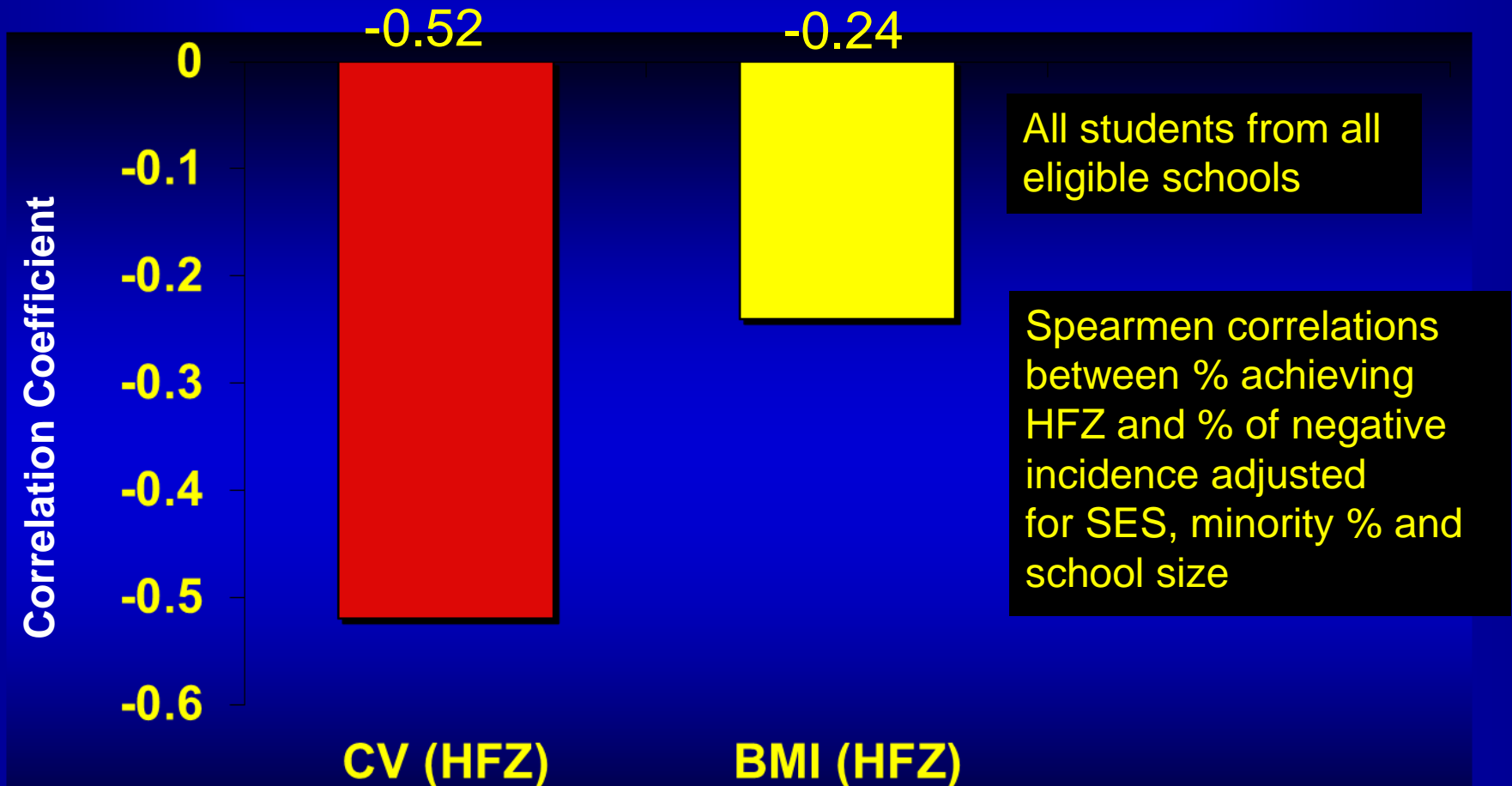
Higher Levels of Fitness Associated with Better School Attendance

Association Between Fitness and Academic Performance (TAKS)



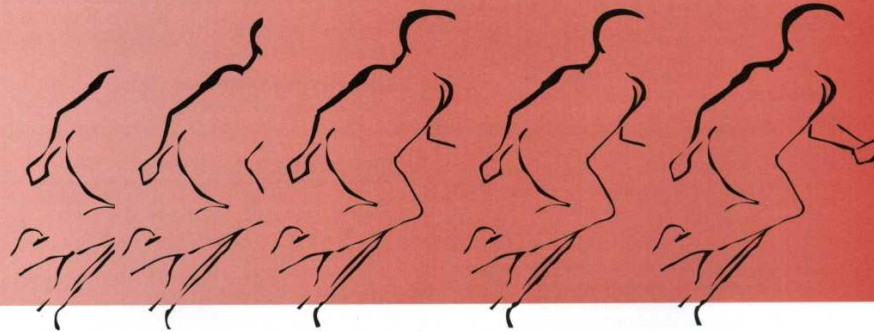
Higher Levels of Fitness Associated with Better Academic Performance

Association Between Fitness and School Incidence Rates



Higher Levels of Fitness Associated with Fewer Negative School Incidents

Research Quarterly *for*



Exercise and Sport

Texas Youth Fitness Study
Supplement to
*Research Quarterly
for Exercise and Sport*
Vol. 81, No. 3

**September
2010**

FitnessGram Presence

- **20,000 schools** worldwide
- **10 million students** are assessed annually
- In **All 50 States** with **6 whole state** software implementations
 - Texas
 - Georgia
 - South Carolina
 - Oklahoma
 - Delaware
 - Vermont